

This Page Is Inserted by IFW Operations  
and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

**IMAGES ARE BEST AVAILABLE COPY.**

As rescanning documents *will not* correct images,  
please do not report the images to the  
Image Problem Mailbox.

## FastTrack™ 2.0 Kit

## mRNA Isolation from Large Samples

## Description:

The FastTrack™ 2.0 mRNA Isolation Kit can be used to isolate mRNA directly from  $1 \times 10^7$  to  $1 \times 10^8$  cells (depending on cell type), 0.4 to 1 gram of tissue, or 0.2 to 1 mg of total RNA. The procedure requires no ultracentrifugation or guanidinium lysis and uses convenient, pre-measured aliquots of oligo dT cellulose powder for high yields of mRNA. The isolated mRNA is intact and full-length and can be used in cDNA library construction, subtracted probe generation, primer extension studies, northern blot analysis, RT-PCR, RNase protection assays, oocyte microinjection, and *in vitro* translation.

## Become a Frequent Buyer!

When you purchase FastTrack™ 2.0 or Micro-FastTrack™ mRNA Isolation Kits, you'll become a member of the FastTrack™ Team of frequent buyers! Frequent buyers are eligible for cool prizes like FastTrack™ T-shirts, baseball caps, and denim shirts. Call Invitrogen's Technical Services Department or visit our web site for more information.

## Contents and Storage:

RNase and Protein Degradar, six pre-measured aliquots of oligo dT cellulose powder, 5 M NaCl, 2 M sodium acetate, stock buffer, binding buffer, elution buffer, low-salt wash buffer, and microcentrifuge spin columns. All reagents are stable at +4°C for 6 months.

Description	Reactions	Cat. no.	Price
FastTrack™ 2.0 Kit	6	K1593-02	\$280
	18 (3 x 6)	K1593-03	\$750

- save money with the convenient multi-pack

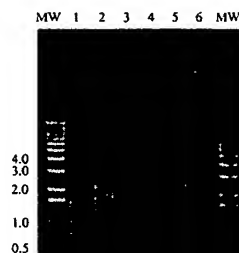
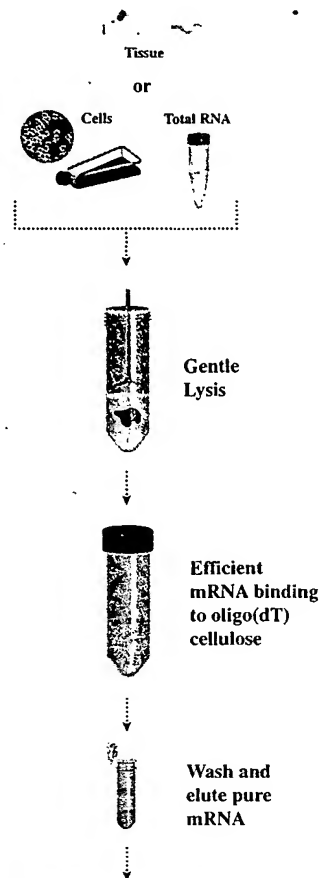
## References:

Aviv, H. and Leder, P. (1972) *Proc. Natl. Acad. Sci.* 69: 1408-1412.  
 Lin, X. *et al.* (1991) *Proc. Natl. Acad. Sci.* 88: 6951-6955.  
 Mathews, L. S. and Vale, W. W. (1991) *Cell* 65: 973-982.

Poly A<sup>+</sup> Yields Obtained with FastTrack™ 2.0

Sample	*Amount	Yield
<b>Tissues</b>		
Rat Spleen	1 g	87 µg
Rat Liver	1 g	71 µg
Rat Kidney	1 g	50 µg
Dog Heart	1 g	31 µg
Calf Intestine	1 g	54 µg
<b>Cells</b>		
3T3	$6.4 \times 10^7$ cells	54 µg
Sf9	$1 \times 10^8$ cells	71 µg
<b>Fungus,</b>		
<i>Trametes Versicolor</i>	1 g	50 µg

## FastTrack™ 2.0 Procedure



mRNA isolated from various sources. Each mRNA pellet was resuspended in 50 µl RNase-free water. 5 µl was loaded onto a 1% agarose gel.

Lane 1: Sf9 Insect cells  
 Lane 2: HeLa cells  
 Lane 3: Kidney tissue  
 Lane 4: Liver tissue  
 Lane 5: Spleen tissue  
 Lane 6: Tobacco plant

You can use the resulting mRNA for cDNA synthesis, RT-PCR, northern, and oocyte microinjection

For information about our cDNA synthesis kit for library construction, see page 114.  
 For RT-PCR, see page 75.

Welcome

Welcome

# Welcome!

Welcome

Welcome

Welcome

Welcome

Welcome

Welcome

Welcome

Welcome

Welcome

Welcome

Inside the 1998 Invitrogen product catalog you will find information about our extensive line of innovative products for gene expression and analysis. We've designed the catalog to help you find the right product for your research needs. Each section contains complete product information, including detailed product descriptions, storage conditions, references, and easy-to-find ordering information. With Invitrogen's product catalog, the information you need is right at your fingertips.



# Where to Find Us

## US Headquarters

Invitrogen Corporation  
1600 Faraday Avenue  
Carlsbad, CA 92008 USA  
Tel: 1-800-955-6288  
Fax: 760-603-7201  
Email: tech\_service@invitrogen.com

World Wide Web  
<http://www.invitrogen.com>

## European Headquarters

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: +31 (0) 594 515 175  
Fax: +31 (0) 594 515 312  
Email: tech\_service@invitrogen.nl

## Where To Order

### Austria

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: 00 31 594 515 175  
Fax: 00 31 594 515 312

### Australia/New Zealand

Bresatec Pty. Ltd.  
P.O. Box 11, Rundle Mall  
Adelaide SA 5000  
Freephone: 1 800 882 555  
Fax: 08 8234 2699

### Belgium

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: gratis/numéro vert 0800 111 73  
Fax: 00 31 594 515 312

### Canada

Invitrogen Corporation  
1600 Faraday Avenue  
Carlsbad, CA 92008 USA  
Tel: 1-800-955-6288  
Fax: 760-603-7201

### China

Beijing Boercheng New Technology Centre  
Room 406-407, High-Tech Building  
19 Zhong Guan Cun Road  
Haidian District  
Beijing 100080  
Tel: 010 6255 3477  
Fax: 010 6253 2010

### Denmark

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: 800 188 67 frikald  
Fax: 00 31 594 515 312

### Finland

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: soitä ilmaiseksi 00 31 800 5345  
Fax: 00 31 594 515 312

### France

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: numéro vert 00 31 800 5345  
Fax: 00 31 594 515 312

### Germany

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: gebührenfrei 0130 8100 43  
Fax: 00 31 594 515 312

### Hungary

Novo-Lab BT  
Ülloi út 200  
H-1680 Budapest, Pf.:21  
Tel: 01 280 3728  
Fax: 01 280 3728

### India

Banaglore Genei Pvt. Ltd.  
No. 6, 6th Main  
BDA Industrial Suburb  
Near SRS Road, Peenya  
Bangalore 560 058  
Tel: 91 80 8391453  
Fax: 91 80 8392825

### Israel

Bio-Lab Ltd.  
P.O. Box 34038  
Jerusalem 91340  
Tel: 02 652 2102  
Fax: 02 652 2103

### Italy

Celbio Srl  
Via Figino 20/22  
20016 Pero  
Tel: 02 38 19 51  
Fax: 02 33 91 00 72

### Japan

Funakoshi Co. Ltd.  
9-7 Hongo 2-chome  
Bunkyo-ku Tokyo  
Tel: 03 5684 1616  
Fax: 03 5684 1633

### Korea

Bio-Medical Science Co. Ltd.  
Je-ill Bldg., 832-6 Yeok Sam-Dong  
Kang Nam-Ku, Seoul 135-080  
Tel: 02 569 6902  
Fax: 02 553 9670

### Malaysia

BioSynTech Sdn., Bhd.  
81-1B Jalan Bandar Satu  
Pusat Bandar Puchong  
47100 Puchong Selangor  
Tel: 03 432 1357  
Fax: 03 432 2468

### The Netherlands

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: gratis 0800 022 8848  
Fax: 0594 515 312

### Norway

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: grønt nummer 800 113 70  
Fax: 00 31 594 515 312

### Poland

Symbios  
ul. Saperów 16/1  
80-431 Gdansk  
Tel: 058 41 47 26  
Fax: 058 41 47 26

### Portugal

Alfagene Lda  
Apartado 28  
2777 Carcavelos Codex  
Tel: 01 453 7085  
Fax: 01 453 5069

### Singapore

Innovative Biotech Pte. Ltd.  
77 Ayer Rajah Crescent #03-04  
Ayer Rajah Industrial Estate  
Singapore 139954  
Tel: 65 779 1919  
Fax: 65 779 1112

### Slovak Republic

Lambda Life spol. s r.o.  
Dubravska cesta 2  
817 03 Bratislava  
Tel: 07 3707 368  
Fax: 07 3707 429

### Spain

Ecogen Srl  
Passatge Dos de Maig 9-11  
Entlo 2a  
08041 Barcelona  
Tel: 03 450 2601  
Fax: 03 456 0607

### Sweden

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: ring gratis 020 795 369  
Fax: 009 31 594 515 312

### Switzerland

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Tel: gebührenfrei/  
numéro vert 0800 551 966  
Fax: 00 31 594 515 312

### Taiwan

Protech Co Ltd  
3rd Floor No 37  
Yen-Ping S Road  
Taipei Taiwan, 39-1062  
Freephone: 080 231 530  
Fax: 886 2 311 8524

### Thailand

Thai Can Biotech Co. Ltd.  
5th Floor, Technic Building  
48 Soi Lertpunya, Sri Ayudhya Rd.  
Bangkok 10400  
Tel: 246 7243  
Fax: 246 7312

### UK

Invitrogen BV  
De Schelp 12, 9351 NV Leek  
The Netherlands  
Freephone: 0800 96 61 93  
Fax: 00 31 594 515 312

### USA

(sales to North, Central and South America)  
Invitrogen Corporation  
1600 Faraday Avenue  
Carlsbad, CA 92008 USA  
Tel: 1-800-955-6288  
Fax: 760-603-7201

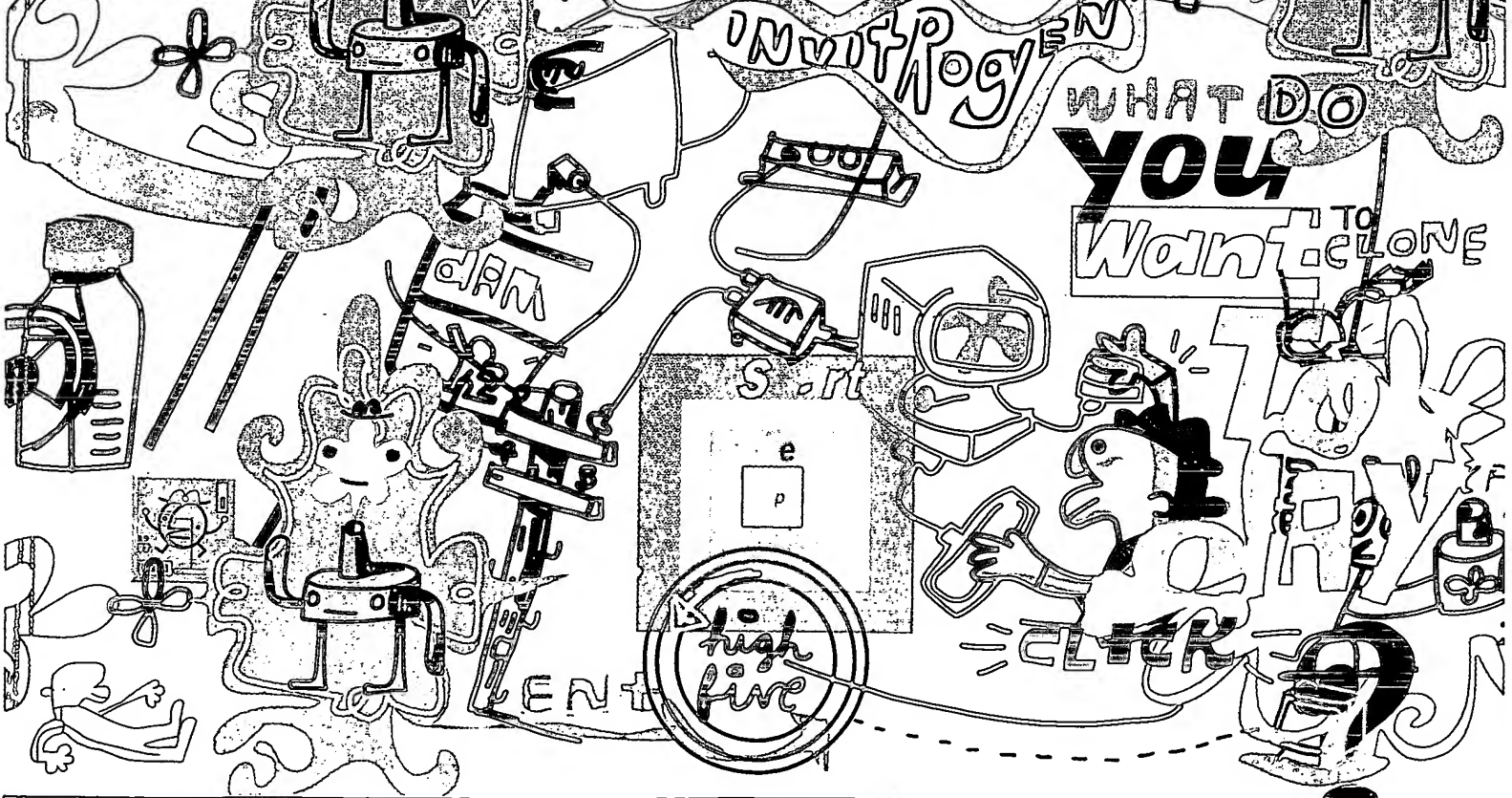
From all other countries, call our  
European Headquarters at  
+31 0 594 515 175



Tel: 1-800-955-6288



# INVITROgen





Save as:

INVTROGEN

FIN

NO  
ONE

CLICK

Invitrogen

1600 FARADAY AVENUE  
CARLSBAD, CA 92008  
TELEPHONE: 760-603-7200  
FACSIMILE: 760-603-7201  
TOLL FREE: 800-955-6288  
WWW.INVITROGEN.COM

BOUND PRINTED  
MATTER BLK RT  
U.S. POSTAGE  
PAID  
PONTIAC, IL  
PERMIT NO. 104

FIN

DNA

PREPARATION